an optically functional layer positioned on said support;

an attachment layer positioned on said optically functional layer; and

an analyte specific receptive layer positioned on said attachment layer,

wherein said support and each of said layers are configured and arranged to provide laminar flow of sample flow through each of said layers via said channels of said device.

2. (Twice Amended)   An optical assay device for the detection of an analyte of interest in a sample comprising:

a support containing channels;

an optically functional layer positioned on said support; and

an attachment layer positioned on said optically functional layer,

wherein said support and each of said layers are configured and arranged to provide laminar flow of sample flow through each of said layers via said channels of said device.

3. (Twice Amended)   An optical assay device for the detection of an analyte of interest in a sample comprising:

a porous support;

an optically functional layer comprising discrete, optically functional particles embedded in said support configured and arranged to provide channels through said optically functional layer;

an attachment layer positioned on said particles; and

an analyte specific receptive layer positioned on said attachment layer,

wherein said support and each of said layers are configured and arranged to provide laminar flow of sample flow through each of said layers via said channels of said device.

4. (Twice Amended)   An optical assay device for the detection of an analyte of interest in a sample comprising:

a porous support;

an optically functional layer comprising discrete, optically functional particles embedded in said support configured and arranged to provide channels through said optically functional layer; and

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an attachment layer positioned on said particles,

wherein said support and each of said layers are configured and arranged to provide laminar flow of sample flow through each of said layers via said channels of said device.

5. (Twice Amended)   An optical assay device for the detection of an analyte of interest in a sample comprising:

a porous support;

an optically functional layer containing channels positioned on said support;

an attachment layer positioned on said optically functional layer; and

an analyte specific receptive layer positioned on said attachment layer,

wherein said support and each of said layers are configured and arranged to provide laminar flow of sample flow through each of said layers via said channels of said device.

6. (Twice Amended)   An optical assay device for the detection of an analyte of interest in a sample comprising:

a porous support;

an optically functional layer containing channels positioned on said support; and

an attachment layer positioned on said optically functional layer,

wherein said support and each of said layers are configured and arranged to provide laminar flow of sample flow through each of said layers via said channels of said device.

18. (Third amended)   Method for constructing an optical assay device with laminar flow properties, comprising the steps of:

providing a support;

providing an optically functional layer on said support;

providing an attachment layer on said optically functional layer; and

providing an analyte specific receptive layer on said optically functional layer, wherein said support and said layers are configured and arranged to provide laminar flow through each of said layers via said channels or through each of said layers via said channels and across one or more of said layers of said device.

19. (Third amended)   Method for constructing an optical assay device with laminar flow properties, comprising the steps of:

provicing a support;

providing an optically functional layer on said support; and

providing an attachment layer on said optically functional layer, wherein said support and said layers are configured and arranged to provide laminar flow through each of said layers via said channels or through each of said layers via said channels and across one or more of said layers of said device.

23. (Twice Amended) A composition comprising a support comprising channels, and an optically functional layer configured and arranged to provide laminar flow of sample through said optically functional layer towards said support via said channels.